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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

THOMPSON, JAMES A

ART UNIT PAPER NUMBER

2624

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/629,464

Applicant(s)

SAYUDA, HIROYUKI

Examiner

James A Thompson

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry (US Patent 5,710,636) in view of Huttenlocher (US Patent 5,884,014).

**Regarding claim 1:** Curry discloses an image processing apparatus (figure 1 of Curry), comprising an input part that inputs document data and inputs bitmap data that is to be embedded (column 3, lines 36-45 of Curry). Grayscale image data of the document to be printed is produced by the image generator (figure 1(12) and column 3, lines 37-40 of Curry). Bitmap data corresponding to the image to be embedded is generated by the bitmap generator (figure 1(10) and column 3, lines 40-42 of Curry). Said grayscale image data and said bitmap data is sent to the halftone generator (figure 1(14) and column 3, lines 33-37 of Curry). Although an input part is not specifically shown, it is inherent in the image processing apparatus since said halftone generator would not otherwise be able to receive said grayscale image data and said bitmap data.

Said image processing apparatus further comprises an embedding part (figure 1(14) of Curry) that embeds said coupling information to be superimposed over at least

part of the image to form the document image of the document data inputted by said input part (column 5, line 65 to column 6, line 11 of Curry).

Curry does not disclose expressly that said document data is specifically hyperdocument data; and that said bitmap data is information for specifying related information related to an image element constituting said document image. Furthermore, Curry does not disclose expressly that said coupling information is superimposed over an element of the image.

Huttenlocher discloses embedding data that points to an object (column 16, lines 3-6 of Huttenlocher) that also contains data, such as a spread sheet (column 16, lines 22-30 of Huttenlocher), a web page (column 16, lines 7-15 of Huttenlocher), or other such embeddable objects (column 16, lines 22-24 of Huttenlocher). Said object is related to what is displayed at that portion of the page (column 15, line 59 to column 16, line 6 of Huttenlocher). A web page (column 16, lines 7-15 of Huttenlocher) is, by definition, a hyperdocument.

Curry and Huttenlocher are combinable because they are from the same field of endeavor, namely the processing and presentation of documents and images. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to embed bitmap data in the image, as taught by Curry; and embed said bitmap data, which points to an object that also contains data, over a specific portion of the image to which said object relates, as taught by Huttenlocher. Furthermore, said document data, taught by Curry, can be stored as hyperdocument data, as taught by Huttenlocher. The motivation for doing so would have been to make a second set of digital information

addressable and available for further use, such as distribution, transmission, storage, and Internet document display (column 5, lines 17-27 of Huttenlocher). Therefore, it would have been obvious to combine Huttenlocher with Curry to obtain the invention as specified in claim 1.

**Regarding claim 2:** Curry discloses document data and embedding image data into said document data (column 6, lines 1-11 of Curry). Curry does not disclose expressly that said document data contains appearance information that defines the image formation positions of the image element on the document image. Furthermore, Curry does not disclose expressly that embedding is performed based on said appearance information.

Huttenlocher discloses that said document data contains appearance information that defines the image formation positions of the image element on the document image. Said appearance information is in the form of commands in a page description language (PDL) file (column 6, lines 37-42 of Huttenlocher), said PDL file being part of the document data. PDL files contain information and commands that describe and construct the page layout structure (column 2, lines 21-26 of Huttenlocher). Huttenlocher further discloses embedding pointers and links based on appearance information, particularly the position and layout of image regions (column 15, line 59 to column 16, line 6 of Huttenlocher).

Curry and Huttenlocher are combinable because they are from the same field of endeavor, namely the processing and presentation of documents and images. At the time of the invention, it would have been obvious to a person of ordinary skill in the art

to embed image data onto said document data, as taught in Curry; and embed said image data based on the position and layout information, as taught in Huttenlocher. The motivation for doing so would have been to be able to embed pointers to information that directly relates to the portion of the document that the pointer is embedded on (column 15, line 67 to column 16, line 4 of Huttenlocher), thus allowing various digital data objects to be accessible (column 16, lines 22-30). Therefore, it would have been obvious to combine Huttenlocher with Curry to obtain the invention as specified in claim 2.

**Regarding claim 3:** Curry discloses embedding information in a document image (column 6, lines 7-11 of Curry). Curry does not disclose expressly that the coupling information indicates a location of the related information.

Huttenlocher discloses pointers that indicate the location of the related information (column 15, line 67 to column 16, line 3; and column 16, lines 22-30 of Huttenlocher).

Curry and Huttenlocher are combinable because they are from the same field of endeavor, namely the processing and presentation of documents and images. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the information that is to be embedded contain location information to the related data. The motivation for doing so would have been that a second set of information can be accessed, said set of information being based upon the pointer information displayed in the related section of the document image (column 15, line 67 to column 16, line 3; and column 16, lines 22-30 of Huttenlocher). Therefore, it would

have been obvious to combine Huttenlocher with Curry to obtain the invention as specified in claim 3.

**Regarding claim 4:** Curry discloses embedding information in a document image (column 6, lines 7-11 of Curry). Curry does not disclose expressly that the coupling information specifies information indicative of a location of the related information.

Huttenlocher discloses storing a pointer that is indicative of the location of the related information (column 15, line 67 to column 16, line 3; and column 16, lines 22-30 of Huttenlocher).

Curry and Huttenlocher are combinable because they are from the same field of endeavor, namely the processing and presentation of documents and images. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the coupling information that is to be embedded at the related areas of the document image specify information that is indicative of the location of the related information. The motivation for doing so would have been that a second set of information can be accessed, said set of information being based upon the pointer information displayed in the related section of the document image (column 15, line 67 to column 16, line 3; and column 16, lines 22-30 of Huttenlocher). Therefore, it would have been obvious to combine Huttenlocher with Curry to obtain the invention as specified in claim 4.

**Regarding claim 5:** Curry discloses that the coupling information specifies the related information itself (figure 5 and figure 6 of Curry). The information that is related

to what is being printed is the information that is embedded in the image and printed on the medium (figure 5, figure 6 and column 5, lines 21-37 of Curry).

**Regarding claim 6:** Curry discloses that said embedding part embeds the coupling information in a form or color in which the coupling information is difficult to identify visually (column 5, lines 16-20 of Curry).

**Regarding claim 7:** Curry discloses an image forming medium on which an image constituted by an image element is formed (column 6, lines 1-11 of Curry), wherein coupling information is superimposed over at least part of the image element (figure 5, figure 6 and column 5, lines 21-37 of Curry).

Curry does not disclose expressly that said coupling information is information for specifying related information related to the image element.

Huttenlocher discloses embedding data that points to an object (column 16, lines 3-6 of Huttenlocher) that also contains data, such as a spread sheet (column 16, lines 22-30 of Huttenlocher), a web page (column 16, lines 7-15 of Huttenlocher), or other such embeddable objects (column 16, lines 22-24 of Huttenlocher). Said object is related to what is displayed at that portion of the page (column 15, line 59 to column 16, line 6 of Huttenlocher). A web page (column 16, lines 7-15 of Huttenlocher) is, by definition, a hyperdocument.

Curry and Huttenlocher are combinable because they are from the same field of endeavor, namely the processing and presentation of documents and images. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to embed information in the image, as taught by Curry; and embed said information,



which points to an object that also contains data, over a specific portion of the image to which said object relates, as taught by Huttenlocher. Furthermore, said document data, taught by Curry, can be stored as hyperdocument data, as taught by Huttenlocher. The motivation for doing so would have been to make a second set of digital information addressable and available for further use, such as distribution, transmission, storage, and Internet document display (column 5, lines 17-27 of Huttenlocher). Therefore, it would have been obvious to combine Huttenlocher with Curry to obtain the invention as specified in claim 7.

### ***Response to Arguments***

3. Applicant's arguments, see page 5, line 14 to page 6, line 6, filed 14 April 2004, with respect to the Information Disclosure Statement (PTO-1449) have been fully considered and are persuasive. The objection to the Information Disclosure Statement listed in item 2 of the first office action, dated 9 January 2004, has been withdrawn. The foreign references listed in the original PTO-1449 have been fully considered. However, since there is no Supplemental PTO-1449 in the application file, it is not possible to return an initialed copy of said Supplemental PTO-1449.

4. Applicant's arguments, see page 6, lines 7-13, filed 14 April 2004, with respect to the drawings have been fully considered and are persuasive. The amendment to the specification listed on page 2 of Applicant's arguments has been noted. The objection

to the drawings listed in item 3 of the first office action, dated 9 January 2004, has been withdrawn.

5. Applicant's arguments, see page 6, line 14 to page 7, line 2, filed 14 April 2004, have been fully considered but they are not persuasive. Applicant's arguments are based upon amended claims. The rejections under 35 USC §103(a) of claims 1 and 7 are discussed above in item 2.

6. Applicant's arguments, see page 7, line 3 to page 9, line 2, filed 14 April 2004, have been fully considered but they are not persuasive. Sufficient motivation to combine Curry (US Patent 5,710,636) with Huttenlocher (US Patent 5,884,014) is clearly stated in the first office action, dated 9 January 2004, and referenced in Huttenlocher (column 5, lines 17-27 of Huttenlocher) on page 4, lines 15-19 and on page 8, lines 17-21 of said first office action. Column 5, lines 22-25 of Huttenlocher clearly states that "[t]he second set of digital information thus produced can be made available for further use (e.g., distribution, transmission, storage, subsequent reconversion into page images)," thus establishing the motivation as originally recited in said first office action on page 4, lines 15-19 and on page 8, lines 17-21. Said motivation is further applicable to hyperdocuments since column 5, lines 25-27 of Huttenlocher clearly states that "[a]pplications of the invention include high-speed printing and Internet (World Wide Web) document display." A document displayed on the Internet is, by definition, a hyperdocument. The cite taken from column 4 of

Huttenlocher that is discussed by Applicant on page 7, line 21 to page 8, line 12 is not relied upon by the Examiner to demonstrate a *prima facie* case for motivation or to demonstrate prior art teachings in Huttenlocher for claims 1 and 7. Applicant is referred to the arguments above in item 2 regarding claim 1 and claim 7.

### **Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson  
Examiner  
Art Unit 2624

JAT  
June 3, 2004



THOMAS D.  
~~THOMAS~~ LEE  
PRIMARY EXAMINER